



Dark Energy Survey (DES) Working Group Meeting

May 12, 2006
10:00 – 12:00 Noon
Snake Pit

Agenda

- 1) Status of Open Action Items from 28-Apr meeting: [Brenna/Wyatt]
- 2) DES Documentation Preparation Status [Wyatt]
- 3) Discuss DES Timeline [Ed/Dean]
- 4) CD-1 Director's Review [Ed]
 - a) Dates
 - b) Potential Reviewers
 - c) Charge
 - d) Agenda
 - e) DES responses to Preliminary Director's Review Recommendations
- 5) DOE O 413.3 Attachment [Ed]
- 6) Value Management Presentation [Nancy Grossman]
- 7) Risk Management Presentation [Dean]

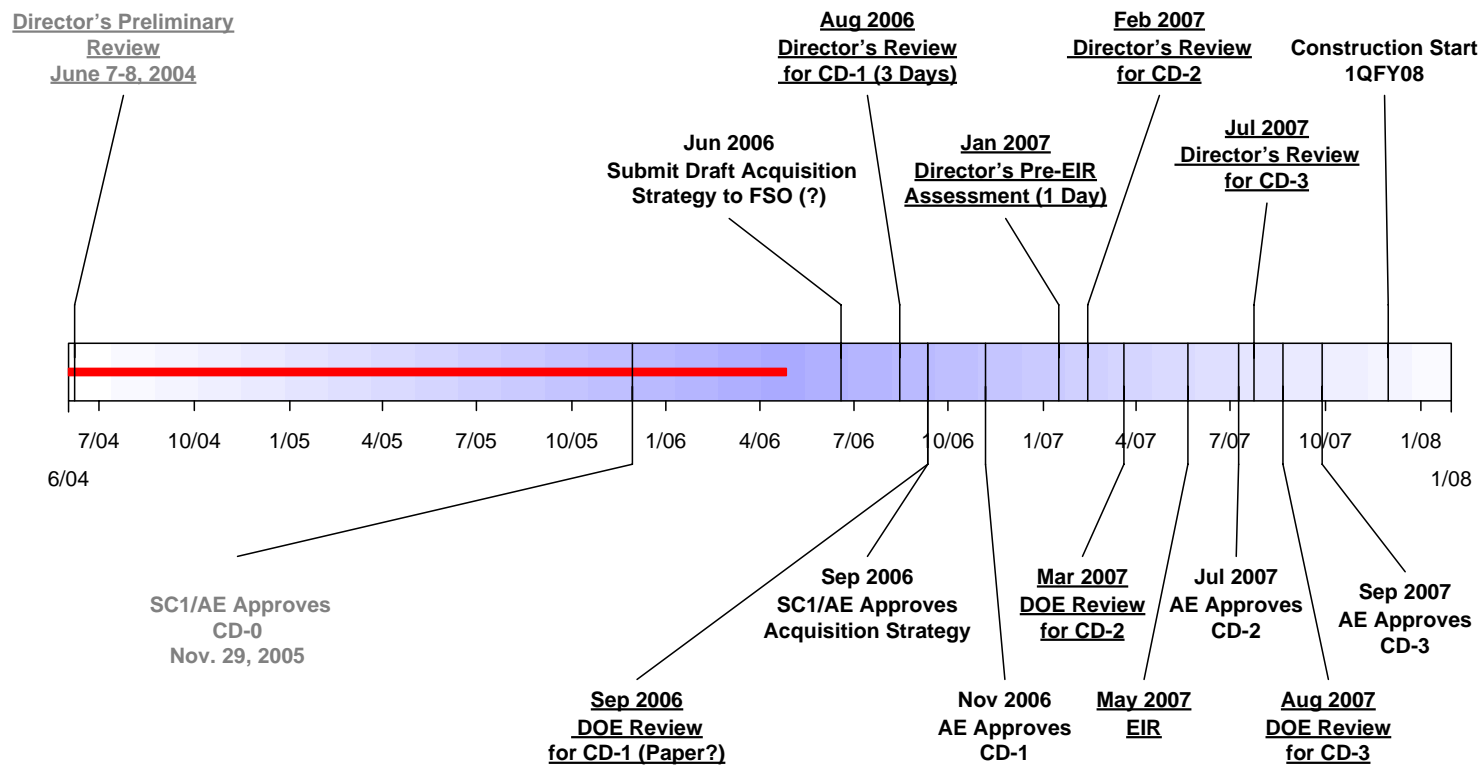
Action Items

- a) Can DES contract for help from the Enrico Fermi Institute to staff the mechanical engineering effort when engineers and designers previously working on DES are reassigned to higher priority tasks? [Greg Bock]
- b) What is needed for staffing the effort for the Preliminary Hazard Analysis Report? [Brenna Flaughner/Jim Strait]
- c) What would DOE like to see in the PMP? [Paul Philp]



Dark Energy Survey Project Timeline for Critical Decisions & Reviews

Updated 04-Apr-06



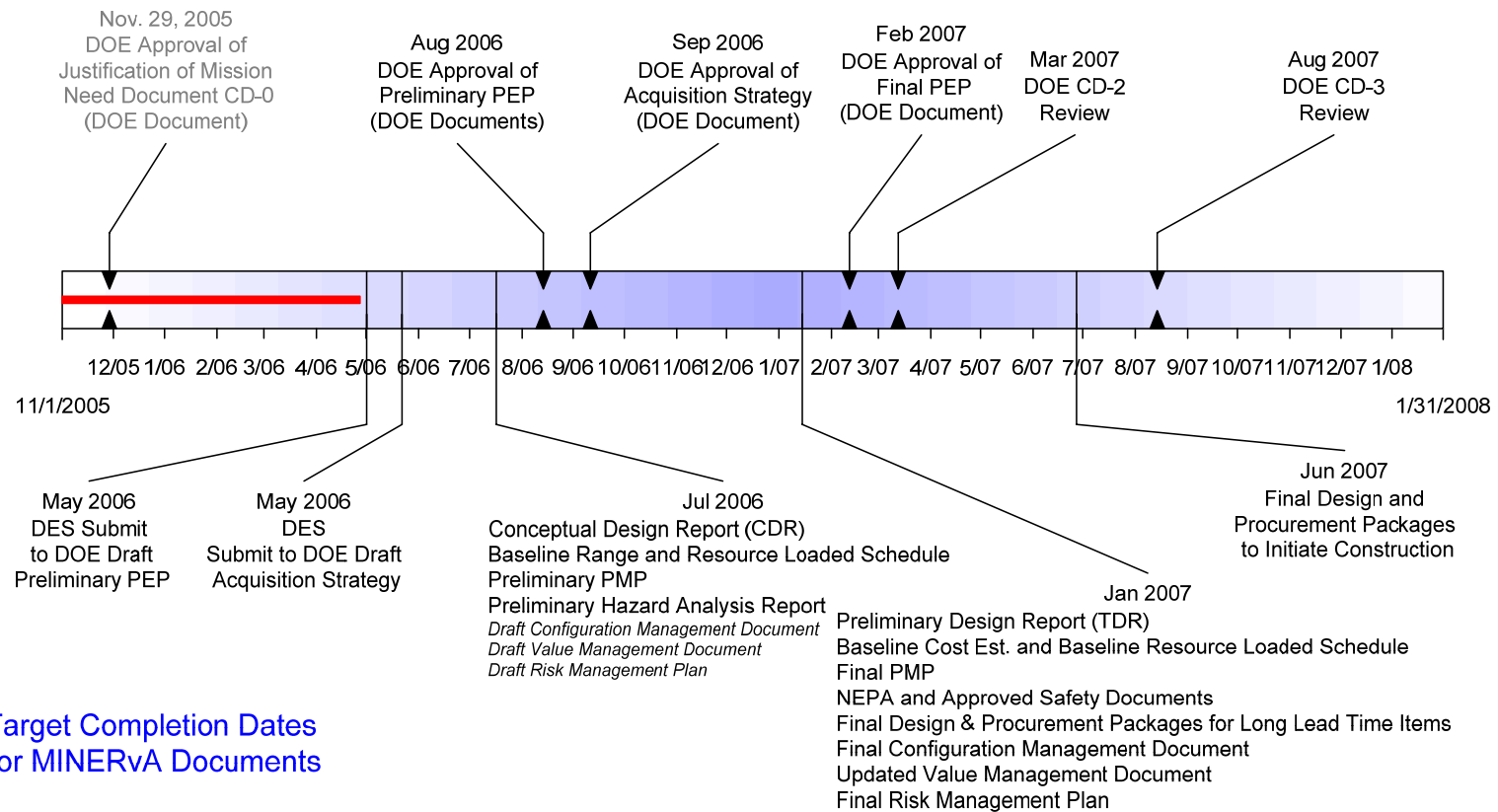


Dark Energy Survey Project Timeline for Critical Decisions & Reviews



Updated 04-Apr-06

Estimated Need by Dates
for DOE Approvals
and Documents



Target Completion Dates
for MINERvA Documents

Note:
Items marked in Red indicates change from prior version

Draft Director's CD-1 Review Charge

Following an Announcement of Opportunity from NOAO, the Dark Energy Survey (DES) program has been proposed for the Blanco Telescope sited at Cerro Tololo Telescope. A Dark Energy Camera (DECam) device is being designed and built at Fermilab as part of the DES program. Please conduct a technical, cost, schedule, and management review of these activities, focussing primarily on the DECam Project, to assure Fermilab management that the project is ready for a DOE CD-1 Review.

The full rigor of DOE project management will be applied only to the DOE funded portions of the DECam Project. The DOE funded portions include the MIE (Major Item of Equipment) and DOE funded OPC (Other Project Costs). The DECam Project should thus be reviewed against the "Expectations for a Successful CD-1 Review" that are listed in Attachment 1 to this charge. However, the success of the DECam Project will be dependent on funding from other agencies, in particular some European Agencies. Thus, to answer some of the questions posed in the attachment the DECam Project must be understood in the broader context of the planned DES program. The proponents will describe the broader program to the extent necessary to gain this understanding

Approval of CD-1 by DOE officials is based on a Conceptual Design documented in a Conceptual Design Report (CDR) for the project. The project scope and preliminary baseline range for the cost and schedule are to be defined at this point in the project. Some additional documents that support the CD-1 determination are a Preliminary Project Execution Plan (PEP), a Preliminary Project Management Plan (PMP), Acquisition Strategy, and the Preliminary Hazard Analysis report. The technical part of the review will focus on the conceptual designs for the DECam. It will answer the questions, will these designs meet the requirements and specifications and are the designs sound. The cost, schedule and scope ranges are usually based on an initial set of documentation such as the following: WBS – Work Breakdown Structure, WBS Dictionary, BOE – Basis of Estimate documentation, risk and contingency analyses, RLS – Resource Loaded Schedule, and time phased funding and cost profiles. The committee is asked to review each of these items, for quality, completeness, and accuracy. Please assure that appropriate ES&H measures have been and are being taken into account. Furthermore, the committee is asked to review and assess the quality of and comment on the additional formal project management documentation (PEP, PMP, and HA) required for CD-1 approval.

Additionally, the committee is to review and comment on Project's response and actions taken on the recommendations from the Director's Preliminary Review of DECam in June 2004. Constructive comments on presentation content, format, and style are also requested.

Finally, the committee should present findings, comments, and conclusions at a closeout meeting with DECam's and Fermilab's management and provide a written report soon after the review.

Attachment 1 of Draft Charge “Expectations for a Successful CD-1 Review”

- ❖ Completed Conceptual Design Report: It should
 - Document the physics requirements to be met,
 - Describe technical solutions that are likely to meet the physics requirements,
 - Provide a credible estimate of the cost range and associated supporting information to justify the cost range,
 - Present a credible schedule duration which shows how long it will take to complete design and construction,
- ❖ Project team in place: The team should be capable of carrying the design forward to a baseline.
 - A qualified project management team should be in place,
 - The physicists, engineers, and other personnel needed to complete the design have been identified and made available,
 - Project roles and responsibilities are clearly defined,
 - There is a plan to complete the R&D needed for the design and resources to implement the plan have been identified.
- ❖ Other required documentation for CD-1:
 - Preliminary Project Execution Plan (PPEP) which addresses all required elements of the PEP at a preliminary level.
 - Details can be completed at CD-2 when the final PEP is approved.
 - A Risk Management Plan that describes the method for managing technical risk, budget risk, and schedule risk,
 - An Acquisition Plan that identifies procurement strategies, including critical make vs buy decisions that have been evaluated in conjunction with scope definition,
 - If a Project Management Plan (PMP) will be used to supplement the PEP then a draft should also exist at a similar level of detail.
 - Preliminary Hazard Analysis Report which identifies major safety issues and conceptual solutions to mitigate these issues.

Reviewers on the Preliminary Director's Review

- Eileen Berman
- Mike Crisler
- Dean Hoffer
- Steve Kahn
- Marcel Demarteau
- Michael Lesser
- Paul Mantsch
- Lynn Seppala
- Roger Smith
- Ed Temple

Other Potential Reviewers

- Bob Tschirhart
- Margaret Votava
- Stu Fuess
- Guther Haller

DOE 413.3 Attachment 1 - CONTRACTOR REQUIREMENTS DOCUMENT

1. Earned Value Management System (Not required if <\$20M)
2. Monthly Reports
3. Acquisition Plan
4. Technical performance analyses and corrective action plans
5. Critical path schedule and Project Master Schedule
6. Cost estimate; (Basis of Estimate)
7. Risk identification, quantification and mitigation
8. Integrated technical, cost, and schedule baseline
9. Configuration Management
10. Value Engineering
11. Quality Assurance Program
12. Integrated Safety Management System
13. Sustainable Building Design